Complete Summary

GUIDELINE TITLE

AHA/ACC guidelines for secondary prevention for patients with coronary and other atherosclerotic vascular disease: 2006 update.

BIBLIOGRAPHIC SOURCE(S)

Smith SC Jr, Allen J, Blair SN, Bonow RO, Brass LM, Fonarow GC, Grundy SM, Hiratzka L, Jones D, Krumholz HM, Mosca L, Pasternak RC, Pearson T, Pfeffer MA, Taubert KA, AHA/ACC, National Heart, Lung, and Blood Institute. AHA/ACC guidelines for secondary prevention for patients with coronary and other atherosclerotic vascular disease: 2006 update: endorsed by the National Heart, Lung, and Blood Institute. Circulation 2006 May 16;113(19):2363-72. PubMed

GUIDELINE STATUS

This is the current release of the guideline.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- August 16, 2007, Coumadin (Warfarin): Updates to the labeling for Coumadin to include pharmacogenomics information to explain that people's genetic makeup may influence how they respond to the drug.
- May 2, 2007, Antidepressant drugs: Update to the existing black box warning on the prescribing information on all antidepressant medications to include warnings about the increased risks of suicidal thinking and behavior in young adults ages 18 to 24 years old during the first one to two months of treatment.
- October 6, 2006, Coumadin (warfarin sodium): Revisions to the labeling for Coumadin to include a new patient Medication Guide as well as a reorganization and highlighting of the current safety information to better inform providers and patients.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Coronary artery disease
- Peripheral arterial disease
- Atherosclerotic aortic disease
- Carotid artery disease
- Other atherosclerotic vascular disease

GUIDELINE CATEGORY

Counseling
Management
Prevention
Risk Assessment
Treatment

CLINICAL SPECIALTY

Cardiology
Family Practice
Internal Medicine
Physical Medicine and Rehabilitation
Preventive Medicine

INTENDED USERS

Health Care Providers
Physicians

GUIDELINE OBJECTIVE(S)

To provide an evidence-based guideline for aggressive secondary prevention, risk-reduction therapies for patients with established coronary and other atherosclerotic vascular disease

TARGET POPULATION

Patients with established coronary and other atherosclerotic vascular disease, including peripheral arterial disease, atherosclerotic aortic disease, and carotid artery disease

INTERVENTIONS AND PRACTICES CONSIDERED

1. Advice and assistance in smoking cessation
2. Avoidance of second-hand smoke
3. Blood pressure control
    - Lifestyle modification
    - Drug therapy (beta-blockers, thiazides, angiotensin-converting enzyme [ACE] inhibitors)
4. Lipid management
    - Diet therapy
    - Addition of plant sterol/stanol
    - Physical activity and weight management
    - Consumption of omega-3 fatty acids
    - Assessment of fasting lipid profile
    - Lipid-lowering drug therapy
5. Encouragement and counseling on physical activity
6. Weight management
    - Assessment of body mass index and waist circumference
    - Encouragement of weight maintenance/reduction
    - Weight loss therapy
7. Diabetes management
    - Lifestyle and pharmacotherapy
    - Risk factor modification
8. Use of antiplatelet agents (aspirin, clopidogrel) and anticoagulants (warfarin)
9. Use of ACE inhibitors, angiotensin receptor blockers, and aldosterone blockers
10. Use of beta-blockers
11. Influenza vaccination

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The guideline recommendations are based largely on major practice guidelines from the National Institutes of Health and American College of Cardiology/American Heart Association (ACC/AHA). In many cases, these practice guidelines were supplemented by research findings published after the publication of the primary reference(s). References and supplemental search criteria used to

support each recommendation and level of evidence are provided in the Appendix of the original guideline document.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level of Evidence A: Data derived from multiple randomized clinical trials or meta-analyses.

Level of Evidence B: Data derived from a single randomized trial or nonrandomized studies.

Level of Evidence C: Only consensus opinion of experts, case studies, or standard-of-care.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The development of the present statement involved a process of partial adaptation of other guideline statements and reports and supplemental literature searches.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Classification of Recommendations

Class I: Conditions for which there is evidence and/or general agreement that a given procedure or treatment is beneficial, useful, and effective.

Class II: Conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a procedure or treatment.

Class IIa: Weight of evidence/opinion is in favor of usefulness/efficacy.

Class IIb: Usefulness/efficacy is less well established by evidence/opinion.

Class III: Conditions for which there is evidence and/or general agreement that a procedure/treatment is not useful/effective and in some cases may be harmful.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This document was approved by the American Heart Association Science Advisory and Coordinating Committee on November 11, 2005, and by the American College of Cardiology Foundation Board of Trustees on November 10, 2005.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the weight of the evidence (A-C) and classes of recommendations (I-III) are provided at the end of the "Major Recommendations" field.

American Heart Association/American College of Cardiology (AHA/ACC) Secondary Prevention for Patients With Coronary and Other Vascular Disease*: 2006 Update

	Intervention Recommendations With Class of Recommendation and Level of Evidence
Smoking Goal Complete cessation. No exposure to environmental tobacco smoke.	• Ask about tobacco use status at every visit. **I (B)** • Advise every tobacco user to quit. **I (B)** • Assess the tobacco user's willingness to quit. **I (B)**

	Intervention Recommendations With Class of Recommendation and Level of Evidence
	• Assist by counseling and developing a plan for quitting. **I (B)** • Arrange follow-up, referral to special programs, or pharmacotherapy (including nicotine replacement and bupropion). **I (B)** • Urge avoidance of exposure to environmental tobacco smoke at work and home. **I (B)**
Blood Pressure Control Goal <140/90 mm Hg or <130/80 mm Hg if patient has diabetes or chronic kidney disease	**For all patients**: • Initiate or maintain lifestyle modification—weight control; increased physical activity; alcohol moderation; sodium reduction; and emphasis on increased consumption of fresh fruits, vegetables, and low-fat dairy products. **I (B)** **For patients with blood pressure ≥140/90 mm Hg (or ≥130/80 mm Hg for individuals with chronic kidney disease or diabetes):** • As tolerated, add blood pressure medication, treating initially with beta-blockers and/or angiotensin-converting enzyme (ACE) inhibitors, with addition of other drugs such as thiazides as needed to achieve goal blood pressure. **I (A)** [For compelling indications for individual drug classes in specific vascular diseases, see Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7).]
Lipid Management Goal Low-density lipoprotein cholesterol (LDL-C) < 100 mg/dL If triglycerides are ≥200 mg/dL non-high-density lipoprotein cholesterol (HDL-C) should be <130 mg/dL[a]	**For all patients**: • Start dietary therapy. Reduce intake of saturated fats (to <7% of total calories), *trans*-fatty acids, and cholesterol (to <200 mg/dL). **I (B)** • Adding plant stanol/sterols (2 g/day) and viscous fiber (>10 g/day) will further lower LDL-C • Promote daily physical activity and weight

management. **I (B)**
- Encourage increased consumption of omega-3 fatty acids in the form of fish[b] or in capsule form (1 g/day) for risk reduction. For treatment of elevated triglycerides, higher doses are usually necessary for risk reduction. **IIb (B)**

For lipid management:

Assess fasting lipid profile in all patients, and within 24 hours of hospitalization for those with an acute cardiovascular or coronary event. For hospitalized patients, initiate lipid-lowering medication as recommended below before discharge according to the following schedule:

- LDL-C should be <100 mg/dL **I (A), and**
- Further reduction of LDL-C to <70 mg/dL is reasonable. **IIa (A)**
- If baseline LDL-C is ≥100 mg/dL, initiate LDL-lowering drug therapy.[c] **I (A)**
- If on-treatment LDL-C ≥100 mg/dL, intensify low-density lipoprotein (LDL)-lowering therapy (may require LDL-lowering drug combination[d]). **I (A)**
- If baseline LDL-C is 70 to 100 mg/dL, it is reasonable to treat to LDL-C <70 mg/dL. **IIa (B)**
- If triglycerides are 200 to 499 mg/dL, non-HDL-C should be <130 mg/dL. **I (B)**, and
- Further reduction of non-HDL-C to <100 mg/dL is reasonable. **IIa (B)**
- Therapeutic options to reduce non-HDL-C are:
    - More intense LDL-C–lowering therapy **I (B)**, or
    - Niacin[e] (after LDL-C–lowering therapy) **IIa (B)**, or
    - Fibrate therapy[f] (after LDL-C–lowering therapy) **IIa (B)**
- If triglycerides are ≥500 mg/dL, therapeutic options to prevent pancreatitis are fibrate[f] or niacin[f] before LDL-lowering therapy; and treat LDL-C to goal after triglyceride-lowering therapy. Achieve non-

	Intervention Recommendations With Class of Recommendation and Level of Evidence
	HDL-C <130 mg/dL if possible. **I (C)**
Physical Activity Goal 30 minutes, 7 days per week (minimum 5 days per week)	• For all patients, assess risk with a physical activity history and/or an exercise test, to guide prescription. **I (B)** • For all patients, encourage 30 to 60 minutes of moderate-intensity aerobic activity, such as brisk walking, on most, preferably all, days of the week, supplemented by an increase in daily lifestyle activities (e.g., walking breaks at work, gardening, household work). **I (B)** • Encourage resistance training 2 days per week. **IIb (C)** • Advise medically supervised programs for high-risk patients (e.g., recent acute coronary syndrome or revascularization, heart failure). **I (B)**
Weight Management Goal Body mass index: 18.5 to 24.9 kg/m^2 Waist circumference: men <40 inches, women <35 inches	• Assess body mass index and/or waist circumference on each visit and consistently encourage weight maintenance/reduction through an appropriate balance of physical activity, caloric intake, and formal behavioral programs when indicated to maintain/achieve a body mass index between 18.5 and 24.9 kg/m^2. **I (B)** • If waist circumference (measured horizontally at the iliac crest) is $\geq$35 inches in women and $\geq$40 inches in men, initiate lifestyle changes and consider treatment strategies for metabolic syndrome as indicated. **I (B)** • The initial goal of weight loss therapy should be to reduce body weight by approximately 10% from baseline. With success, further weight loss can be attempted if indicated through further assessment. **I (B)**
Diabetes Management Goal	• Initiate lifestyle and pharmacotherapy to achieve near-normal HbA_{1c}. **I (B)**

	Intervention Recommendations With Class of Recommendation and Level of Evidence
Glycosylated hemoglobin (HbA_{1c}) <7%	• Begin vigorous modification of other risk factors (e.g., physical activity, weight management, blood pressure control, and cholesterol management as recommended above). **I (B)** • Coordinate diabetic care with patient's primary care physician or endocrinologist. **I (C)**

Antiplatelet Agents/Anticoagulants	• Start aspirin 75 to 162 mg/day and continue indefinitely in all patients unless contraindicated. **I (A)**
	  • For patients undergoing coronary artery bypass grafting, aspirin should be started within 48 hours after surgery to reduce saphenous vein graft closure. Dosing regimens ranging from 100 to 325 mg/day appear to be efficacious. Doses higher than 162 mg/day can be continued for up to 1 year. **I (B)**
	• Start and continue clopidogrel 75 mg/day in combination with aspirin for up to 12 months in patients after acute coronary syndrome or percutaneous coronary intervention with stent placement ($\geq$1 month for bare metal stent, $\geq$3 months for sirolimus-eluting stent, and $\geq$6 months for paclitaxel-eluting stent). **I (B)**
	  • Patients who have undergone percutaneous coronary intervention with stent placement should initially receive higher-dose aspirin at 325 mg/day for 1 month for bare metal stent, 3 months for sirolimus-eluting stent, and 6 months for paclitaxel-eluting stent. **I (B)**
	• Manage warfarin to international normalized ratio=2.0 to 3.0 for paroxysmal or chronic atrial fibrillation or flutter, and in post–myocardial infarction patients when clinically indicated (e.g., atrial fibrillation, left ventricular thrombus). **I (A)**
	• Use of warfarin in conjunction with aspirin and/or clopidogrel is associated with increased risk of bleeding and should be

	Intervention Recommendations With Class of Recommendation and Level of Evidence
	monitored closely. **I (B)**
Renin-Angiotensin-Aldosterone System Blockers	**Angiotensin-converting enzyme (ACE) inhibitors**: • Start and continue indefinitely in all patients with left ventricular ejection fraction ≤40% and in those with hypertension, diabetes, or chronic kidney disease, unless contraindicated. **I (A)** • Consider for all other patients. **I (B)** • Among lower-risk patients with normal left ventricular ejection fraction in whom cardiovascular risk factors are well controlled and revascularization has been performed, use of ACE inhibitors may be considered optional. **IIa (B)** **Angiotensin receptor blockers**: • Use in patients who are intolerant of ACE inhibitors and have heart failure or have had a myocardial infarction with left ventricular ejection fraction ≤40%. **I (A)** • Consider in other patients who are ACE inhibitor intolerant. **I (B)** • Consider use in combination with ACE inhibitors in systolic-dysfunction heart failure. **IIb (B)** **Aldosterone blockade**: • Use in post-myocardial infarction patients, without significant renal dysfunction[g] or hyperkalemia[h], who are already receiving therapeutic doses of an ACE inhibitor and beta-blocker, have a left ventricular ejection fraction ≤40%, and have either diabetes or heart failure. **I (A)**
Beta-Blockers	• Start and continue indefinitely in all patients who have had myocardial infarction, acute coronary syndrome, or left ventricular dysfunction with or without

	Intervention Recommendations With Class of Recommendation and Level of Evidence
	heart failure symptoms, unless contraindicated. **I (A)** • Consider chronic therapy for all other patients with coronary or other vascular disease or diabetes unless contraindicated. **IIa (C)**
Influenza Vaccination	Patients with cardiovascular disease should have an influenza vaccination. **I (B)**

Notes:

*Patients covered by these guidelines include those with established coronary and other atherosclerotic vascular disease, including peripheral arterial disease, atherosclerotic aortic disease, and carotid artery disease. Treatment of patients whose only manifestation of cardiovascular risk is diabetes will be the topic of a separate American Heart Association (AHA) scientific statement.

[a] Non-HDL-C =total cholesterol minus HDL-C.

[b] Pregnant and lactating women should limit their intake of fish to minimize exposure to methylmercury.

[c] When LDL-lowering medications are used, obtain at least a 30% to 40% reduction in LDL-C levels. If LDL-C <70 mg/dL is the chosen target, consider drug titration to achieve this level to minimize side effects and cost. When LDL-C <70 mg/dL is not achievable because of high baseline LDL-C levels, it generally is possible to achieve reductions of >50% in LDL-C levels by either statins or LDL-C–lowering drug combinations.

[d] Standard dose of statin with ezetimibe, bile acid sequestrant, or niacin.

[e] The combination of high-dose statin + fibrate can increase risk for severe myopathy. Statin doses should be kept relatively low with this combination. Dietary supplement niacin must not be used as a substitute for prescription niacin.

[f] Patients with very high triglycerides should not consume alcohol. The use of bile acid sequestrant is relatively contraindicated when triglycerides are >200 mg/dL.

[g] Creatinine should be <2.5 mg/dL in men and <2.0 mg/dL in women.

[h] Potassium should be <5.0 mEq/L.

Definitions:

Levels of Evidence

Level of Evidence A: Data derived from multiple randomized clinical trials or meta-analyses.

Level of Evidence B: Data derived from a single randomized trial or nonrandomized studies.

Level of Evidence C: Only consensus opinion of experts, case studies, or standard-of-care.

Strength of Recommendations

Class I: Conditions for which there is evidence and/or general agreement that a given procedure or treatment is beneficial, useful, and effective.

Class II: Conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a procedure or treatment.

> **Class IIa**: Weight of evidence/opinion is in favor of usefulness/efficacy.
>
> **Class IIb**: Usefulness/efficacy is less well established by evidence/opinion.

Class III: Conditions for which there is evidence and/or general agreement that a procedure/treatment is not useful/effective and in some cases may be harmful.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Improved survival
- Reduced recurrent events
- Decreased need for intervention procedures
- Improved quality of life

POTENTIAL HARMS

- Use of warfarin in conjunction with aspirin and/or clopidogrel is associated with increased risk of bleeding and should be monitored closely.
- The combination of high-dose statin + fibrate can increase risk for severe myopathy. Statin doses should be kept relatively low with this combination.
- Pregnant and lactating women should limit their intake of fish to minimize exposure to methylmercury.

CONTRAINDICATIONS

CONTRAINDICATIONS

The use of bile acid sequestrant is relatively contraindicated when triglycerides are > 200 mg/dL.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- The findings from additional lipid reduction trials allow for alterations in these guidelines, such that low-density lipoprotein cholesterol (LDL-C) should be < 100 mg/dL for all patients with coronary heart disease (CHD) and other clinical forms of atherosclerotic disease, but in addition, it is reasonable to treat to LDL-C < 70 mg/dL in such patients. When the < 70 mg/dL target is chosen, it may be prudent to increase statin therapy in a graded fashion to determine a patient's response and tolerance. Furthermore, if it is not possible to attain LDL-C < 70 mg/dL because of a high baseline LDL-C, it generally is possible to achieve LDL-C reductions of > 50% with either statins or LDL-C–lowering drug combinations. Moreover, this guideline for patients with atherosclerotic disease does not modify the recommendations of the 2004 Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) (ATP III) update for patients without atherosclerotic disease who have diabetes or multiple risk factors and a 10-year risk level for CHD > 20%. In the latter 2 types of high-risk patients, the recommended LDL-C goal of < 100 mg/dL has not changed. Finally, to avoid any misunderstanding about cholesterol management in general, it must be emphasized that a reasonable cholesterol level of < 70 mg/dL does not apply to other types of lower-risk individuals who do not have CHD or other forms of atherosclerotic disease; in such cases, recommendations contained in the 2004 ATP III update still pertain.
- The writing group emphasizes the importance of giving consideration to the use of cardiovascular medications that have been proved in randomized clinical trials to be of benefit. This strengthens the evidence-based foundation for therapeutic application of these guidelines. The committee acknowledges that ethnic minorities, women, and the elderly are underrepresented in many trials and urges physician and patient participation in trials that will provide additional evidence with regard to therapeutic strategies for these groups of patients.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Tool Kits

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Smith SC Jr, Allen J, Blair SN, Bonow RO, Brass LM, Fonarow GC, Grundy SM, Hiratzka L, Jones D, Krumholz HM, Mosca L, Pasternak RC, Pearson T, Pfeffer MA, Taubert KA, AHA/ACC, National Heart, Lung, and Blood Institute. AHA/ACC guidelines for secondary prevention for patients with coronary and other atherosclerotic vascular disease: 2006 update: endorsed by the National Heart, Lung, and Blood Institute. Circulation 2006 May 16;113(19):2363-72. PubMed

ADAPTATION

The guideline recommendations are partially adapted from major practice guidelines from the National Institutes of Health and the American College of Cardiology/American Heart Association (ACC/AHA).

DATE RELEASED

2006 May 16

GUIDELINE DEVELOPER(S)

American College of Cardiology Foundation - Medical Specialty Society
American Heart Association - Professional Association

SOURCE(S) OF FUNDING

The American College of Cardiology Foundation and the American Heart Association

GUIDELINE COMMITTEE

Writing Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Writing Committee Members: Sidney C. Smith, Jr, MD; Jerilyn Allen, RN, ScD; Steven N. Blair, PED; Robert O. Bonow, MD; Lawrence M. Brass, MD; Gregg C. Fonarow, MD; Scott M. Grundy, MD, PhD; Loren Hiratzka, MD; Daniel Jones, MD; Harlan M. Krumholz, MD; Lori Mosca, MD, PhD, MPH; Richard C. Pasternak, MD*; Thomas Pearson, MD, MPH, PhD; Marc A. Pfeffer, MD, PhD; Kathryn A. Taubert, PhD

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

The American Heart Association and American College of Cardiology make every effort to avoid any actual or potential conflicts of interest that might arise as a result of an outside relationship or personal interest of a member of the writing panel. Specifically, all members of the writing panel are asked to provide disclosure statements of all such relationships that might be perceived as real or potential conflicts of interest. These statements are reviewed by the parent task force, reported orally to all members of the writing panel at the first meeting, and updated as changes occur. The relationships with industry for writing committee members, as well as peer reviewers of the document, are located before the references.

Table: Writing Group Disclosures

Writing Group Member	Employment	Research Grant	Other Research Support	Speakers Bureau/Honoraria	Ownership Interest	Consultant Bo
Sidney C. Smith Jr, MD	University of North Carolina, Chapel Hill	None	None	Honoraria: *Bayer, *BMS, *Sanofi-Aventis	None	*Sanofi- *GlaxoSmit Lilly, *Pfiz
Jerilyn Allen, RN, ScD	Johns Hopkins University, School of Nursing	None	None	None	None	*Board of Preve Cardiovasc Association Directors, Lipid As
Steven N.	Cooper	**HealthTech,	None	Donates all	None	**Miavit

Writing Group Member	Employment	Research Grant	Other Research Support	Speakers Bureau/Honoraria	Ownership Interest	Consultan Bo
Blair, PED	Institute	**Jenny Craig		honoraria to The Cooper Institute		Fitness, **
Robert O. Bonow, MD	Northwestern University, School of Medicine	None	None	*Bristol-Myers Squibb Medical Imaging	None	*Bristol-My Medical Im Pharma
Lawrence M. Brass, MD	Yale University	Bristol-Myers Squibb, Sanofi/Synthelabo*	None	Bristol-Myers Squibb, Sanofi/Synthelabo, Solvay Pharmaceuticals, Wyeth	None	AstraZene Myers Johnson& Merck Pharma Sanofi/Sy Sol Pharma Wy
Gregg C. Fonarow, MD	University of California, Los Angeles	**GlaxoSmithKline, **Medtronic	None	**GlaxoSmithKline, **Merck–Schering Plough, **Bristol-Myers Squibb–Sanofi, *AstraZeneca, *Wyeth	None	**GlaxoS **Pfizer, Scherin **Brist Squibb *AstraZene
Scott M. Grundy, MD, PhD	University of Texas Southwestern	**Abbott, **GlaxoSmithKline	**Donald W. Reynolds Foundation, **VA Hospital	*Merck, Schering-Plough, *GlaxoSmithKline, *Pfizer, *Kos, *Bristol-Myers Squibb, *Lilly	*None	*Pfizer, Aventis, *Astra *GlaxoS
Loren Hiratzka, MD	TriHealth, Inc	None	None	None	None	No
Daniel Jones, MD	University of Mississippi Medical Center	None	None	None	None	No
Harlan M. Krumholz,	Yale University	**CV Therapeutics	None	None	None	*CV Ther **VH

Writing Group Member	Employment	Research Grant	Other Research Support	Speakers Bureau/Honoraria	Ownership Interest	Consultant Bo
MD						(Consultant Healthcare **CFM Coordinato (Editoria
Lori Mosca, MD, PhD, MPH	New York Presbyterian	**NIH	*Pfizer	*Kos, *Abbott, *AstraZeneca, *Pfizer, *Sanofi-Aventis	None	*Kos, *Pfiz Aventis, * Plo
Thomas Pearson, MD, MPH, PhD	University of Rochester	**World Heart Federation, *Schering-Plough, *Pfizer, *Merck, *Sanofi-Aventis	None	*Kos, *Abbott, *AstraZeneca, *Pfizer, *Schering-Plough, *Bayer, *Merck	None	**Me *Johnson Merck, *Sanofi
Marc A. Pfeffer, MD, PhD	Brigham & Women's Hospital	Amgen, Atherogenics, Novartis, Bristol-Myers, Squibb, Sanofi-Synthelabo**	None	None	The Brigham & Women's Hospital has been awarded patents related to the use of inhibitors of the renin-angiotensin system in selected survivors. He is co-inventor. However, the licensing agreement is not linked to sales.**	**Astra **Ger **Gu **Mitsubis *Amgen, Myers Squ *Novartis *Pf
Kathryn A. Taubert, PhD	American Heart Association	None	None	None	None	No

*Modest

**Significant

Note: This table represents the relationships of writing group members that may be perceived as actual or reasonably perceived conflicts of interest as reported on the Disclosure Questionnaire, which all members of the writing group are required to complete and submit. A relationship is considered to be "Significant" if (a) the person receives $10 000 or more during any 12-month period, or 5% or more of the person's gross income; or (b) the person owns 5% or more of the voting stock or share of the entity, or owns $10 000 or more of the fair market value of the entity. A relationship is considered to be "Modest" if it is less than "Significant" under the preceding definition.

Table: Reviewers' Disclosures

Reviewer	Employment	Research Grant	Other Research Support	Speakers Bureau/Honoraria	Ownership Interest
Jonathan Abrams, MD	University of New Mexico Health Science Center	None	None	None	None
Joseph Alpert, MD	University of Arizona Department of Medicine	None	None	None	None
Jeffrey L. Anderson, MD	LDS Hospital Cardiology	Bristol-Myers Squibb (grant pending)	None	Bristol-Myers Squibb, Dia Dexus, Guilford, Merck, Johnson&Johnson/Merck, Merck-Schering, Sanofi-Aventis	None
Eric R. Bates, MD	University of Michigan Medical Center	None	None	None	None
Vera Bittner, MD	University of Alabama at Birmingham	NHLBI, Pfizer, AtheroGenics	None	Pfizer, Merck, Kos, Reliant	None
Ann Bolger, MD	University of California San Francisco	None	None	None	None
Roger S. Blumenthal, MD	Johns Hopkins Hospital	Merck, Pfizer	None	Pfizer, Merck, Astra Zeneca, Kos, Schering-Plough	None
Prakash Deedwania, MD	University of California San Francisco	Pfizer, AstraZeneca	None	None	None
Mark J. Eisenberg, MD	McGill University	None	None	None	None
Gerald Fletcher, MD	Mayo Clinic	None	None	None	None

Reviewer	Employment	Research Grant	Other Research Support	Speakers Bureau/Honoraria	Ownership Interest
Alan D. Forker, MD	St. Lukes Hospital	Pfizer, Merck, Kos, Novartis, Sankyo, Bristol-Myers Squibb	None	Pfizer, Merck, Takeda	None
Timothy Gardner, MD	Clinical Practices of the University of Pennsylvania	None	None	None	None
Cindy L. Grines, MD	William Beaumont Hospital	Berlex, Pfizer, GlaxoSmithKline, Aventis, Guidant Eli Lilly, SCIMED, Johnson&Johnson, Amersham Health, Otsuka, Esperion Therapeutics, Innercool Therapies, AstraZeneca	None	None	None
Suzanne Hughes, MSN, RN	None	None	Kos Pharmaceuticals	None	Guidant Corporation Johnson&John Merck
Edgar J. Kenton, MD	Lankenau Hospital	None	None	None	None
Marian Limacher, MD	University of Florida	Boehringer Ingelheim	NIH, NHLBI	Kos Pharmaceuticals	None
Jonathan R. Lindner, MD	University of Virginia	None	None	None	None
Janet B. Long, MSN, ACNP	University Cardiology Foundation	None	None	AstraZeneca	None
Patrick McBride, MD	University of Wisconsin Medical School	None	None	Kos, Merck, Pfizer, Sanyko, Schering Plough	None
Dale Owen, MD	None	None	None	None	None
Rita F. Redberg, MD, MSc	None	None	None	None	None
Samuel J.	Harvard	None	None	None	None

Reviewer	Employment	Research Grant	Other Research Support	Speakers Bureau/Honoraria	Ownership Interest
Shubrooks, Jr, MD	Medical School				
Robert A. Vogel, MD	University of Maryland Hospital	Pfizer, Novartis, Schering-Plough	None	Pfizer, Merck	None

Note: This table represents the relationships of reviewers that may be perceived as actual or reasonably perceived conflicts of interest as reported on the Disclosure Questionnaire, which all reviewers are required to complete and submit.

ENDORSER(S)

National Heart, Lung, and Blood Institute (U.S.) - Federal Government Agency [U.S.]

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the American Heart Association Web site, and from the American College of Cardiology (ACC) Web site.

Print copies: Available from the American Heart Association, Public Information, 7272 Greenville Ave, Dallas, TX 75231-4596; Phone: 800-242-8721

AVAILABILITY OF COMPANION DOCUMENTS

Get With the Guidelines (GWTG) provides disease-specific process documents and tools for in-house quality improvement. See the American Heart Association Web site for more information.

PATIENT RESOURCES

None available

NGC STATUS

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